

Name: \_\_\_\_\_

**at1110paper\_practice\_test (v41)**

1. Expand the following expression into standard form.

$$(3x + 4)(7x + 6)$$

$$21x^2 + 18x + 28x + 24$$

$$21x^2 + 46x + 24$$

2. Solve the equation.

$$(8x + 7)(5x - 3) = 0$$

$$x = \frac{-7}{8} \quad x = \frac{3}{5}$$

3. Expand the following expression into standard form.

$$(5x - 2)(5x + 2)$$

$$25x^2 + 10x - 10x - 4$$

$$25x^2 - 4$$

4. Expand the following expression into standard form.

$$(5x - 9)^2$$

$$25x^2 - 45x - 45x + 81$$

$$25x^2 - 90x + 81$$

5. Factor the expression.

$$x^2 + 10x + 21$$

$$(x + 3)(x + 7)$$

6. Factor the expression.

$$49x^2 - 25$$

$$(7x + 5)(7x - 5)$$

7. Solve the equation with factoring by grouping.

$$20x^2 + 15x - 24x - 18 = 0$$

$$(5x - 6)(4x + 3) = 0$$

$$x = \frac{6}{5} \quad x = \frac{-3}{4}$$

8. Solve the equation.

$$10x^2 - 28x - 28 = 5x^2 - 2x - 4$$

$$5x^2 - 26x - 24 = 0$$

$$(5x + 4)(x - 6) = 0$$

$$x = \frac{-4}{5} \quad x = 6$$